

APPLICATION  
FOR  
UNITED STATES LETTERS PATENT  
ENTITLED

HEADGEAR STRAP BUCKLE WITH DISPLAY THEREON  
AND METHOD FOR EXHIBITING A DISPLAY ON SAME

TO WHOM IT MAY CONCERN:

BE IT KNOWN THAT (1) Kenneth A. Shwartz of 49 Mattapoisett Neck Rd., Mattapoisett, MA 02739 and (2) Charles Lord of 6 Pine Island Rd., Mattapoisett, MA 02739, invented certain new and useful improvements entitled as set forth above of which the following is a specification.

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Claim of Priority

This application claims priority to U.S. Provisional Patent Application No. 60/401496, entitled HEADGEAR STRAP BUCKLE WITH DISPLAY THEREON AND METHOD FOR EXHIBITING A DISPLAY ON SAME, and filed on August 6, 2002, naming Kenneth A. Schwartz and Charles Lord as inventor(s), the contents of which are herein incorporated by reference in their entirety.

Technical Field

- [001] The present invention relates generally to headgear, for examples caps and visors, and more particularly, to caps and visors having a decorative head-strap buckle.

Background Art

- [002] Headgear, including visors and caps, have been in use for quite some time to display company logos, special events, messages, or just general advertisement. The exhibition of these displays, whether for commercial reasons or decorative purposes, have mostly been on the front of the visor or cap, and in particular, in the area of the visor or cap which is adjacent the forehead of the wearer, where the fabric is sufficiently soft to permit, for instance, embroidering or sewing of the display. To a certain extent, some of the displays have been provided on the bill of the visor or cap. Displays have also been provided on other areas of a cap or visor. Such displays, regardless of its location on the headgear, often aim to draw the attention of the viewers.

- [003] One area on the cap or visor which can creatively be used to exhibit a display is the surface of a buckle that is positioned on the adjustable head strap at the back of the cap or visor. The surface of such a buckle, unlike the remainder of the cap or visor, can only provide a small area upon which a display can be placed. To that end, such a surface may not provide an ideal location for exhibiting a display, since any display thereon would have difficulties drawing the attention of the viewers to its location on the buckle.

- [004] In addition, the location of the metallic buckle on the head strap can make the buckle susceptible to encountering environmental conditions, such as rain, as well as perspiration

coming from the head of the wearer. The presence of rain and/or perspiration can lead to the oxidation of the buckle, and can accelerate the corrosion process, thereby shortening the period over which the display can be exhibited on the buckle.

[005] Accordingly, it would be desirable to provide a buckle and method which can draw attention to the display on the buckle and which can minimize the possibility of corrosion of the display to extend its longevity thereon.

#### Summary of the Invention

[006] The present invention, in accordance with one embodiment, provides a headgear, for example, a cap or visor, which can exhibit displays, such as company logos, special events, messages, or general advertisements. The headgear, as provided, can include a head strap for adjusting a circumference of the headgear about a head of a person. The headgear can also include a buckle through which the head strap can extend for maintaining the head strap at an adjusted position. The buckle, in an embodiment, can be made from a metallic material, for instance, brass, and can include an embossed pattern. The headgear may also include a display layer positioned on an outer surface of the buckle and having at least one color different from that of the buckle for ease of viewing. The display layer, in a preferred embodiment, is positioned within the embossed pattern and includes a plurality of colors. To minimize exposure of the display layer to environmental conditions which can affect the longevity of the display layer, the headgear can be provided with a sealant layer over the display layer and the outer surface of the buckle.

[007] In accordance with another embodiment of the present invention, a method of exhibiting a display on a headgear is provided. The method may include providing a buckle through which a head strap of a headgear can extend for securing the head strap at an adjusted position. The buckle, in one embodiment, can be provided with an embossed pattern on its outer surface for use as part of the display. Next, a display layer may be applied to the outer surface of the buckle, for instance, within the embossed pattern. The display layer can include at least one color different from that of the buckle, and in certain embodiments, can include a plurality of colors. Once the display layer has been applied, a sealant layer may be deposited over the display layer and the outer surface of the buckle. To minimize disturbance to the integrity of the display layer, the sealant layer is applied only after the display layer has been dried. In an embodiment wherein a plurality of colors is used with the display layer, each color may be dried prior to the application of successive colors. The single sealant layer may also be deposited or a plurality of sealant layers may be deposited on to the display layer.

### Brief Description of the Drawings

[008] Fig. 1 illustrates a perspective rear view of the headgear with a head strap buckle in accordance with one embodiment of the present invention.

[009] Fig. 2 illustrates the head strap buckle shown in Fig. 1.

[010] Fig. 3 is a cross sectional view of the buckle shown in Fig. 1

[011]

### Detailed Description of Specific Embodiments

[011] The present invention provides, in one embodiment, a headgear which permits displays, such as logos, events, messages, or general advertisements to be decoratively exhibited, for example, on a buckle positioned on an adjustable head strap at the rear of the headgear. The headgear of the present invention may either be a cap or a visor.

[012] In Fig 1, there is shown a cap 10 having a crown portion 11 and a bill portion 12 attached thereto. The crown portion 11, in general, may be used for placement on to a head of a person. The bill portion 12, on the other hand, may be characterized by a substantially rigid material, such as hard plastic or cardboard, to permit the bill portion 12 to adequately maintain its shape.

[013] The bill portion 12, as shown in Fig. 1, includes a proximal end 15 and a distal end 16. The proximal end 15 may be designed to have a curvature 17 which complements the curvature about the periphery of the crown portion 11, so that the bill portion 12 may be closely attached at its proximal end 15 to the crown portion 11. It should be appreciated that the curvature 17 may vary according to the size of the crown portion 11, and in particular, the circumference of the crown portion 11, so long as the curvature 17 is maintained in a manner which permits a complementary fit about the periphery of the crown portion 11.

[014] The bill portion 12, in one embodiment, is preferably overlaid with a piece of covering 18. To provide the covering 18 with a secure fit over the bill portion 12, the covering 18 may be sewn directly on to the bill portion 12. Alternatively, the covering 18 may be tightly stretched over the bill portion, and the covering 18 and bill portion 12 sewn to the crown portion 11. If desired, the covering 18 may be of the same material and color from which the crown 11 is made. Otherwise, the covering 18 may be of a different material and color from which the crown 11 is made. In an embodiment, the material from which the covering 18 may be made includes cotton fabric, polyester fabric, plastic, or other commercially available material typically used in the manufacturing of headgear or clothes.

[015] Still looking at Fig. 1, the cap 10 may also include a headband 13, secured to the crown portion 11, and designed for placement circumferentially about a head of a person (not shown). To allow attachment of the headband 13 to the crown portion 11, the crown portion 11 may include a lower periphery 131 against which the band 20 may be secured. The headband 13 may include opposing ends 132 defining a space 133 therebetween. By providing the headband 13 with opposing ends 132, different size heads may be accommodated when the ends 132 are adjusted relative to one another.

[016] To adjust the position of the ends 132 relative to one another, a head strap 19 may be provided. Head strap 19, as shown in Fig. 1, may include a free end 191 and an attached end 192, which may be attached to one opposing end 132 of the headband 13. In this manner, should it be necessary to tighten the circumference of the headband 13 to accommodate a different head size, the head strap 19 may be pulled from the free end 191 to adjust a distance between opposing ends 132 across space 133.

[017] In order to secure the position head strap 19 once it has been adjusted, cap 10 may be provided with a buckle 20 positioned on the crown portion 11. Buckle 20, as shown in Fig. 2, may be a conventional head strap buckle having a first member 21 pivotally attached at an end 22 to a second member 23. When the first member 21 is pivoted away from the second member 23, buckle 20 is in a release position, and a slot (not shown) of adequate size is provided at pivot end 22 between the first member 21 and the second member 23 of buckle 20 through which the head strap 19 may extend. Once the desired adjusted position of the head strap 19 has been attained, the first member 21 may be pushed back against the second member 23 to reposition the buckle 20 to a closed position. In the closed position, the size of the slot at pivot end 22 is sufficiently smaller, so that the head strap 19 may be securely held between the first member 21 and the second member 23 of buckle 20, as illustrated in Fig. 1.

[018] It should be noted that although the head strap 19 is shown as a single strap extending across space 133, other designs may be used. For instance, a two-strap design may be used with each strap attached to one opposing end 132 of headband 13. In such an embodiment, each free end of the head straps may be pulled toward one another to adjust the circumference of the headband 13. A buckle 20 may be attached to one of the two head straps and the remaining strap may extend through the buckle 20. In this manner the buckle 20 can act to maintain and secure the adjusted position to the head straps. Alternatively, the head strap may be an elastic strap with each end attached to one opposing end 132 of the headband 13. Such a strap can expand according to the head circumference of the person wearing the cap 10. A buckle can be placed on the elastic strap for exhibiting a display if desired.

[019] The buckle 20, as shown in Fig. 2, may be manufactured, in accordance with one embodiment of the present invention, to include a pattern 24 on an outer surface 25 of the first member 21. The pattern 24 provides, in an embodiment, an area at which a display may be exhibited. The pattern 24 may be generated by, for instance, an embossing process whereby various designs or patterns in relief may be produced by mechanical means. In particular, the material upon which the pattern is to be produced may be pressed between a pair of dies especially adapted to the hardness of the material and the depth of the pattern to be generated. Of course, it should be appreciated that methods other than embossing may be used to create pattern 24.

[020] Since the material from which the buckle 20 can be made needs to be sufficiently strong in order to accommodate an embossed pattern, the material may be metals and/or metal alloys, such as, brass, steel or other similar materials. The buckle 20 may also be obtained commercially from a variety of sources known to those skilled in the art.

[021] Looking now at Fig. 3, to exhibit a display on the buckle 20, a display layer 26 may be applied to within the embossed pattern 24. In one embodiment of the invention, the display layer 26 may be provided with at least one color different from that of the buckle 20. Such color should be brilliant, so that the display layer 26 will not blend in with the background color of the buckle 20, thus enhancing the ease of recognition of the display. Alternatively, the display layer 26 can be provided with a plurality of colors should it be so desired. Selection of the color or colors for the display layer 26 can be based on the color or colors of the headgear 10. Specifically, the color or colors can be selected to match, enhance, or compliment the color or color scheme of the headgear 10, and can be coordinated with the color scheme of clothes or outfit to be worn by a person.

[022] The display layer 26, in one embodiment, can be paint. The display layer 26 may also be adhesive paper. If paint is used for the display layer 26, it is preferable that the paint be of the type that can adhere firmly to metals or metal alloys, so as to not subsequently become easily separated from the metallic buckle 20. Furthermore, although the display layer 26 is shown and discussed as being positioned within the embossed pattern 24, it should be appreciated that the embossed pattern 24 may not be necessary and the display layer 26 can be applied directly on to the outer surface 25 of the buckle 20.

[023] In applying the display layer 26 within the embossed pattern 24, the display layer 26 may initially be painted within the pattern 24. Thereafter, the layer may be permitted to dry, for instance, at room temperature, before proceeding with the next step. If it becomes necessary to accelerate the drying process, the display layer 26 may be heated, for example,

by exposing the buckle 20, along with the newly applied display layer 26, to a heat source at a temperature range of from about 25° C to about 30° C until the display layer 26 is dried. In the embodiment wherein the display layer 26 includes a plurality of colors, it is preferable that each color be applied, then dried, before the next color is applied. In this manner, the possibility of a color running over or mixing with another color can be minimized. It should be noted that if adhesive paper is used instead, drying the display layer 26 may not be necessary.

[024] Once the display layer 26 has been applied and is firmly positioned within the embossed pattern 24, a sealant layer 27 may be deposited over the display layer 26, the embossed pattern 24 and the outer surface 25 of the buckle 20. By depositing the sealant layer 27 in such a manner, the display layer 26 and/or outer surface 25 of the buckle 20 may be protected from exposure to environmental conditions (e.g., rain or perspiration), which could act to oxidize the metallic buckle 20 and expedite its corrosion, thereby damaging the display layer 26. Alternatively, the sealant layer 27 may be deposited over the display layer 26 alone. After the sealant layer 27 has been deposited, the sealant layer 27 may be dried, for instance, at room temperature. Alternatively, the sealant layer 27 may be dried by exposing the buckle 20 to a heat source at a temperature range of from about 25° C to about 30° C for until the sealant layer 27 is dried. In one embodiment, the sealant layer 27 may be an enamel that is substantially transparent to permit visualization of the display layer 26.

[025] As it may be necessary to enhance protection of the buckle 20 and display layer 26 from environmental conditions, a plurality of the sealant layers 27 may be deposited on to the outer surface 25 of the buckle 20. Deposition of successive sealant layers 27 should be done only when the previous layer 27 has been dried. The deposition of additional sealant layers 27, however, should be kept to a certain thickness, since additional sealant layers 27 may interfere with the ability of a person to visualize the display layer 26 on the buckle 20. In addition, the ability to feel the embossed pattern 24 may diminish when too many sealant layers 27 are present. Accordingly, the thickness of the sealant layer 27 should be kept to within a range sufficient to cover the outer surface 25 and display 26 on the buckle 20, while permitting clear visualization of the display layer 26 and sensation of the embossed pattern 24. It should be noted that although reference has been made to deposition of the sealant layer 27 on the outer surface 25, the sealant layer 27 may also be deposited over the entire buckle 20, including the second member 23 and all surfaces of the buckle 20. To that end, the entire buckle 20 may be protected from environmental conditions which could lead to the corrosion of the buckle 20.

[026] A finished buckle 20 with the display layer 26 thereon may thereafter be positioned on the cap 10 and/or head strap 19 for, among other things, decorative exhibition of the display layer 26. The brilliant colors in the display layer 26 can aid in directing the attention of a viewer to the relatively small size buckle 20. Moreover, the buckle 20 with the display layer 26 can be used to coordinate the garment to be worn, for instance, the color scheme of the clothes or outfit to be worn can be selected to match or enhance the color scheme of the display layer 26. Of course, the buckle 20 may still be used for its intended purposes, that is to maintain the head strap 19 at an adjusted position.

[027] While the invention has been described in connection with the specific embodiments thereof, it will be understood that it is capable of further modification. For example, although reference has been made to a cap 10 throughout, it should be appreciated that a visor can be easily adapted to include the features provided herein. Furthermore, in addition to metals and metal alloys, the buckle 20 may be made from any strong material capable of having a display applied thereon. This application is intended to cover any variations, uses, or adaptations of the invention, including such departures from the present disclosure as come within known or customary practice in the art to which the invention pertains, and as fall within the scope of the appended claims.